



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,601	12/04/2003	Chih-Min Chang	CHAN3234/EM	6965
23364	7590	04/28/2005	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			SHAKERI, HADI	
			ART UNIT	PAPER NUMBER
			3723	

DATE MAILED: 04/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/726,601

Applicant(s)

CHANG, CHIH-MIN

Examiner

Hadi Shakeri

Art Unit

3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

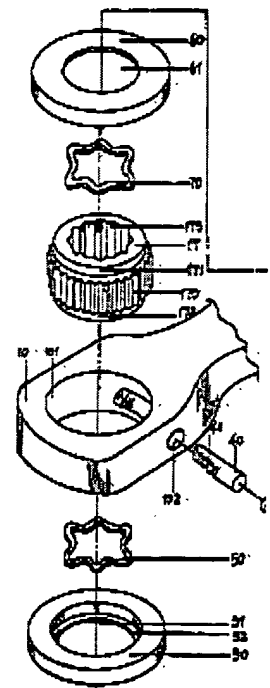
- The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- Claims 1-3, 5, 6, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (4,991,468).

Lee discloses all of the limitations of claim 1, i.e., a ratchet wrench including a handle having a hole at an end thereof; a ratchet wheel (17) having a polygonal hole at a center thereof, a first teeth portion at an annular outer surface thereof, and two engagement portions (171) (172) disposed respectively at opposite ends thereof; said ratchet wheel being rotatably mounted in the hole of the handle with the engagement portions protruded out of the hole of the handle; a pawl (40) mounted in the hole of the handle and having a second teeth portion detachably meshed with the first teeth portion of the ratchet wheel, and two annular members (30) (60) firmly fastened to the engagement portions of the ratchet wheel respectively, said annular member each having an outer diameter greater than a diameter of the hole of the handle.



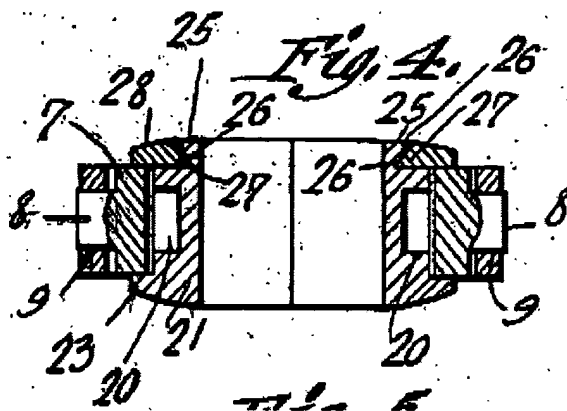
Regarding claims 2 and 3, Lee meets the limitations, e.g., engagement portions coaxially disposed.

Regarding claims 5 and 6, Lee meets the limitations, e.g., embossments (70) provided at a wall of the hole of the annular members and engagement portion of the ratchet wheel.

Art Unit: 3723

3. Claims 9-11 and 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Cross (1,331,956).

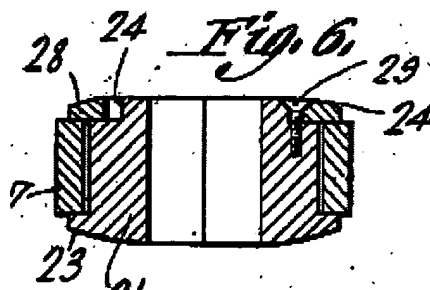
Cross discloses all of the limitations of claim 9, i.e., a ratchet wrench including a handle having a hole (an opening through something as defined by Webster) at an end thereof; a ratchet wheel (21) having a polygonal hole at a center thereof, a first teeth portion at an annular outer surface thereof, an engagement portion (24,25) at one end, an annular flange (23) having a diameter greater than the hole at the other end; said ratchet wheel being rotatably mounted in the hole of the handle with the engagement portion and the annular flange protruded out of the hole of the handle; a pawl (19) mounted in the hole of the handle and having a second teeth portion detachably meshed with the first teeth portion of the ratchet wheel, and an annular member (28) firmly fastened to the engagement portion of the ratchet wheel respectively, said annular member having an outer diameter greater than a diameter of the hole of the handle.



Regarding claims 10 and 11, Cross meets the limitations, e.g., engagement portions coaxially disposed.

Regarding claims 13 and 14, Cross meets the limitations as recited, i.e., "embossments" (8) and (9).

Regarding claims 15 and 16, Cross meets the limitations as recited, i.e., screw thread connection (29) and sloped surfaces (26) and (27).



***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee and Cross respectively.

All of the limitations of claims 4 and 12 are met by Lee and Cross respectively, except for use of plastic for the annular members. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use plastic, (cost effective, light and durable), since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. (Note "the annular member" line 1, claim 4, should be changed to, -- the annular members--).

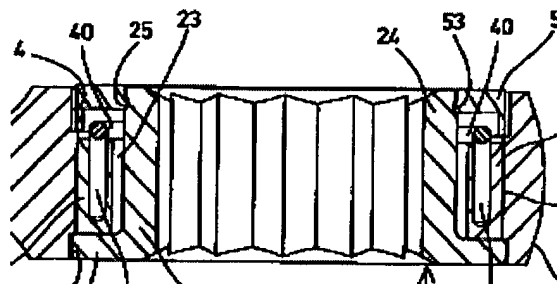
6. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Cross.

Lee meets all of the limitations of claims 7 and 8, except for screw thread connection between the engagement portions and the annular members; using sloped section to secure these parts. Cross teaches securing an annular portion with an engagement portion using sloped sections (26) and threaded connection (29). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the invention of Lee with the different means of connecting the engagement and annular portions as taught by Cross to securely hold these parts.

Art Unit: 3723

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Chang (2,107,568).

Lee meets all of the limitations of claim 18, except for embossment on each member. Chang teaches ratchet wrenches in which the cap (50) is engaged with the ratchet head (20) by embossment



(53), (25) on each member respectively. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the invention of Lee with the different means of connecting the engagement and annular portions, i.e., the embossments as taught by Chang to securely hold these parts, as a simple economical means.

8. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Haist (2,107,568).

Lee meets all of the limitations of the above claims, except for embossments formed on each member and screw thread connection between the



engagement portions and the annular members. Haist teaches ratchet wrenches in which screw collar (16) is threadably engaged with the ratchet head (14). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the invention of Lee with the different means of connecting the engagement and annular portions, i.e., threaded engagement as taught by Haist to securely hold these parts, as a simple economical means.

Note that screw connection is considered to meet the limitation of "embossment".

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Response to Arguments***

10. Applicant's arguments filed February 11, 2005 have been fully considered but they are not persuasive.

The argument over 35 USC 102(b) rejection over Lee is that, Lee discloses detent rings (50) and (70) situated between the drive wheel and caps, and no such arrangement is contemplated by the present invention, and that the limitation of "annular members firmly fastened to the engagement portions of the ratchet wheel" as recited in claim 1 is not met. This is not found persuasive, firstly, whether Lee uses a detent ring to obtain the firm fastening of the annular members (caps) and the engagement portion (172) of the wheel, or not is irrelevant, since the claim limitation, i.e., firm fastening of the annular members and the wheel is met. Further, as indicated in col. 2, lines 47-50, the cap (30) is fixedly connected to the cylindrical portion (172) by the flange 32, again meeting the limitations as recited.

Art Unit: 3723

Similarly the argument against Cross with regards to claim 9, is that the locking ring (28) of Cross is fastened by a screw (29) to the jaws (21, defining the wheel) and that the surface engagement of Cross is irrelevant to the design as far as fit is concern, which again fails to indicate how this type of engagement would not read on "annular member firmly fastened to the engagement portions of the ratchet wheel"?

The argument against rejections under 35 USC 103 (a) is that the three criteria must be met. The Examiner considers these basic criteria to be met. Firstly the modification with regards to material used based on the intended use and motivated by cost, physical properties, e.g., light or durable, as indicated in the office action is well within the knowledge of one of ordinary skill in the art, which meets, motivation, expectation of success and claims limitations, lacking any arguments for any limitations which is not met, except for what was argued for anticipation rejections.

Regarding the modification of claims 7 and 8, it is noted that different types of fastening two or more members, e.g., using sloped section and threaded connection, are not only known to one of ordinary skill in the art but also taught by the teaching reference Cross, Figs. 4 and 6, meeting motivation to combine (known simple means), expectation of success and meeting all the claims' limitations.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hadi Shakeri whose telephone number is 703-308-6279. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J. Hail, III can be reached on 703-308-2687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Art Unit: 3723

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Hadi Shakeri', is positioned above the printed name and title.

Hadi Shakeri  
Primary Examiner  
Art Unit 3723  
April 22, 2005